

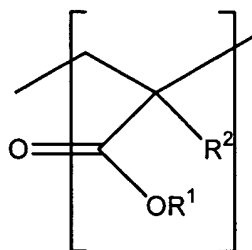
Amendments to the Claims

Prior to substantive examination, Applicants have amended claims 1-31 without any intention of disclaiming equivalents thereof. New claim 32 has been added. The following list of claims replaces all prior versions and lists of claims in the application.

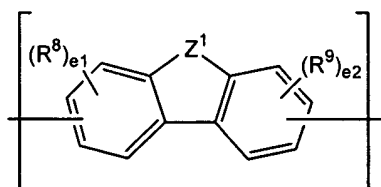
What is claimed is:

1. (Currently Amended) An organic electronic device comprising at least two electrodes and a semiconducting layer comprising a mixture of at least one hole-transporting semiconducting material and at least one electron-transporting semiconducting material, wherein at least one of said semiconducting materials ~~is in the~~ comprises ~~form of~~ semiconducting polymer brushes ~~which are attached to the~~ a surface of at least one of said electrodes and ~~are~~ in contact with at least one of said other semiconducting materials.
2. (Currently Amended) ~~An~~ The organic electronic device according to claim 1, wherein contact between said semiconducting polymer brushes attached to the electrode and said at least one other semiconducting material is achieved by ~~either~~:
 - (a) intercalation of said at least one other semiconducting material with said semiconducting polymer brushes;
 - (b) growth of said at least one other semiconducting material as further semiconducting polymer brushes in ~~the~~ gaps between said first semiconducting polymer brushes to give an interpenetrating mixed polymer network; or
 - (c) ~~by the~~ polymerisation of a second, different monomer from the end of said semiconducting polymer brushes to give block co-polymer brushes having a bi-layer structure with direct covalent bonds between ~~the said~~ at least two or more semiconducting components materials.

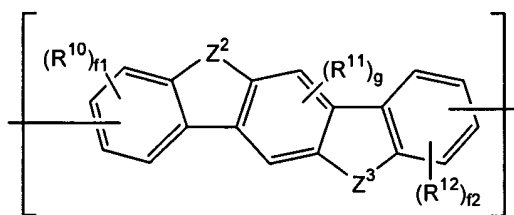
3. (Currently Amended) ~~An~~ The organic electronic device according to claim 1 ~~or claim 2~~, wherein said device is selected from the group consisting of electroluminescent devices, photovoltaic devices, field effect transistors, and liquid crystal devices.
4. (Currently Amended) ~~An~~ The organic electronic device according to claim 3, wherein said device is comprises a photovoltaic device.
5. (Currently Amended) ~~An~~ The organic electronic device according to claim 3, wherein said device is comprises an electroluminescent device.
6. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 5~~ claim 1, wherein the average length of the polymer brushes is from 1 nm to 1 μ m.
7. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 5~~ claim 1, wherein the average length of the polymer brushes is at least 40 nm.
8. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 7~~ claim 1, wherein said semiconducting polymer brushes ~~are brushes wherein the~~ comprise a polymer is selected from the group consisting of poly-phenylene-vinylene (PPV) and derivatives thereof, polyfluorene derivatives, polynaphthylene derivatives, polyindenofluorene derivatives, polyphenanthrenyl derivatives, and poly(acrylate) derivatives.
9. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 7~~ claim 1, wherein said semiconducting polymer brushes ~~are brushes wherein the~~ comprise a polymer is unit selected from the group consisting of ~~polymers which include the following units~~ of formulae (I), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV) or (XV):



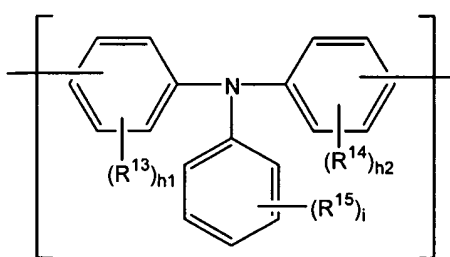
(I)



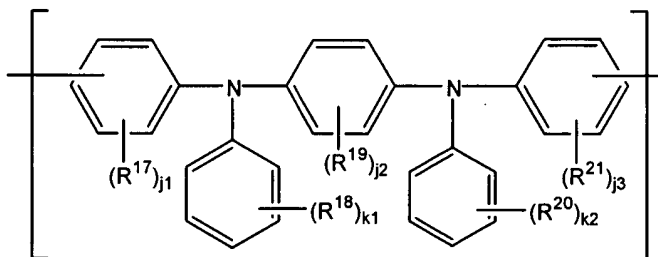
(VIII)



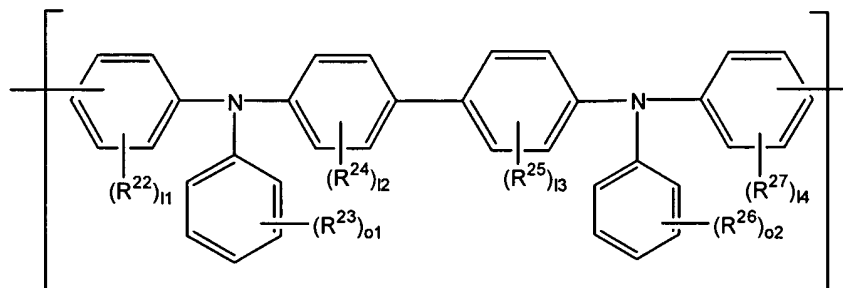
(IX)



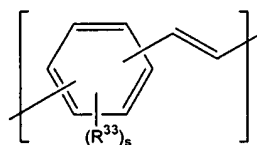
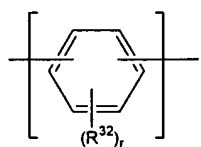
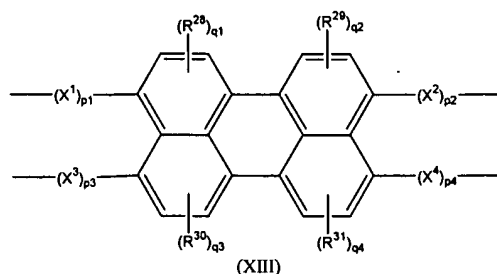
(X)



(XI)



(XII)

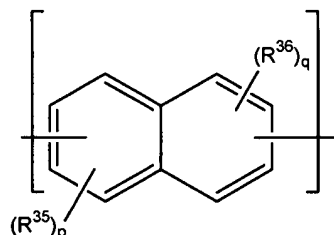
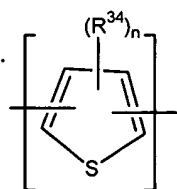


wherein:

R^1 is a group of formula $-(CH_2)_m-X-Y$ wherein

m is 0 or an integer of from 1 to 6,

X is a group of formula (X), (XI), (XII), (XIII), (XIV) or (XV) as defined above or a group of formula (II) or (III) as defined below



wherein

n is 0, 1 or 2,

p and q are the same or different and each is 0 or an integer of from 1 to 3, and

each of R^{34} , R^{35} and R^{36} is the same or different and is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as

defined below, aralkyl groups as defined below and groups of formula $-\text{COR}^{16}$ wherein R^{16} is selected from the group consisting of hydroxy groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below, amino groups, alkylamino groups the alkyl moiety of which is as defined below, dialkylamino groups wherein each alkyl moiety is the same or different and is as defined below, aralkyloxy groups the aralkyl moiety of which is as defined below and haloalkoxy groups comprising an alkoxy group as defined below which is substituted with at least one halogen atom,

or, where n, p or q is an integer of 2, the 2 ~~groups~~ R^{34} groups, the two R^{35} groups, or the two R^{36} groups respectively may, together with the ring carbon atoms to which they are attached, form an aryl group as defined below or a heterocyclic group having from 5 to 7 ring atoms, one or more of said ring atoms being a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur atoms, and

Y is selected from the group consisting of a hydrogen atom, R^{37} , NHR^{38} and $\text{NR}^{38}\text{R}^{39}$, wherein

R^{37} is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below and groups of formula $-\text{COR}^{16}$ wherein R^{16} is as defined above, and

each of R^{38} and R^{39} is the same or different and is selected from the group consisting of aryl groups as defined below and aralkyl groups as defined below;

R^2 is selected from the group consisting of group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below and alkoxy groups as defined below;

each of R^8 to R^{15} and R^{17} to R^{33} is the same or different and is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below and groups of formula $-\text{COR}^{16}$ wherein R^{16} is as defined above,

or, where r or s is an integer of 2, the 2 groups R^{32} or R^{33} respectively may, together with the ring carbon atoms to which they are attached, form a heterocyclic group having from 5 to 7 ring atoms, one or more of said ring atoms being a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur atoms;

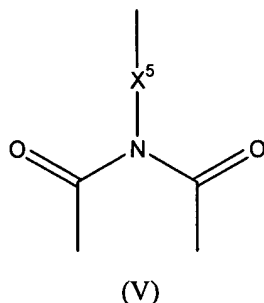
each of Z^1 , Z^2 and Z^3 is the same or different and is selected from the group consisting of O, S, SO, SO₂, NR³, N⁺(R^{3'})(R^{3''}), C(R⁴)(R⁵), Si(R⁴)(R⁵) and P(O)(OR⁶), wherein R³, R^{3'} and R^{3''} are the same or different and each is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below, and alkyl groups as defined below which are substituted with at least one group of formula -N⁺(R⁷)₃ wherein each group R⁷ is the same or different and is selected from the group consisting of hydrogen atoms, alkyl groups as defined below and aryl groups as defined below, R⁴, R⁵, R^{4'} and R^{5'} are the same or different and each is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, halogen atoms, nitro groups, cyano groups, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below and aralkyl groups as defined below or R⁴ and R⁵ together with the carbon atom to which they are attached represent a carbonyl group, and R⁶ is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below and aralkyl groups as defined below;

each of X¹, X², X³ and X⁴ is the same or different and is selected from:

arylene groups which are aromatic hydrocarbon groups having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted by at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryloxy groups as defined below and alkoxy groups as defined below;

straight or branched-chain alkylene groups having from 1 to 6 carbon atoms;

straight or branched-chain alkenylene groups having from 2 to 6 carbon atoms; and
straight or branched-chain alkynylene groups having from 1 to 6 carbon atoms; or X^1 and
 X^2 together and/or X^3 and X^4 together can represent a linking group of formula (V)
below:



wherein X^5 represents an arylene group which is an aromatic hydrocarbon group having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted by at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryloxy groups as defined below and alkoxy groups as defined below;

each of e1, e2, f1 and f2 is the same or different and is 0 or an integer of 1 to 3;

each of g, q1, q2, q3 and q4 is the same or different and is 0, 1 or 2;

each of h1, h2, j1, j2, j3, l1, l2, l3, l4, r and s is the same or different and is 0 or an integer of 1 to 4;

each of i, k1, k2, o1 and o2 is the same or different and is 0 or an integer of 1 to 5;

and

each of p1, p2, p3 and p4 is 0 or 1;

the alkyl groups above are straight or branched-chain alkyl groups having from 1 to 20 carbon atoms;

the haloalkyl groups above are alkyl groups as defined above which are substituted with at least one halogen atom;

the alkoxy groups above are straight or branched-chain alkoxy groups having from 1 to 20 carbon atoms;

the alkoxyalkyl groups above are alkyl groups as defined above which are substituted with at least one alkoxy group as defined above; and

the aryl group above and the aryl moiety of the aralkyl groups (which have from 1 to 20 carbon atoms in the alkyl moiety) and the aryloxy groups above is an aromatic hydrocarbon group having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted with at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined above, haloalkyl groups as defined above, alkoxyalkyl groups as defined above and alkoxy groups as defined above.

10. (Currently Amended) ~~An~~ The organic electronic device according to claim 9, wherein said semiconducting brushes ~~are~~ comprise homopolymeric brushes ~~which comprise~~ comprising units of formulae (I), (VIII), (IX), (X), (XIV) or (XV).

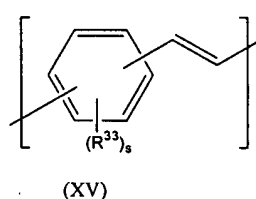
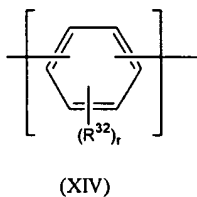
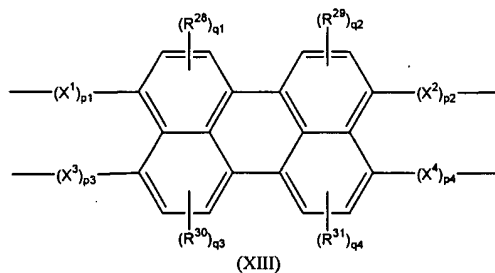
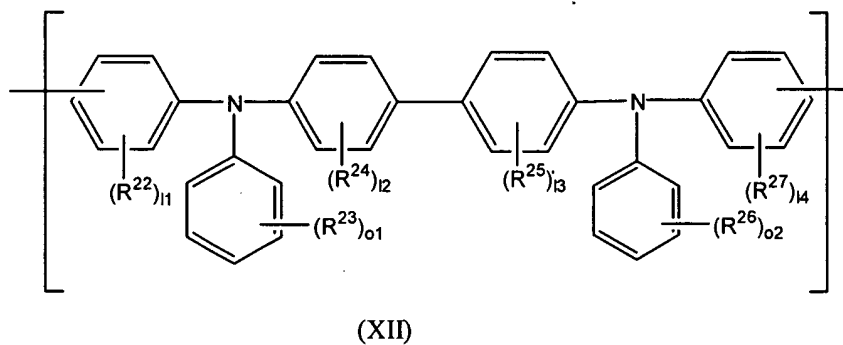
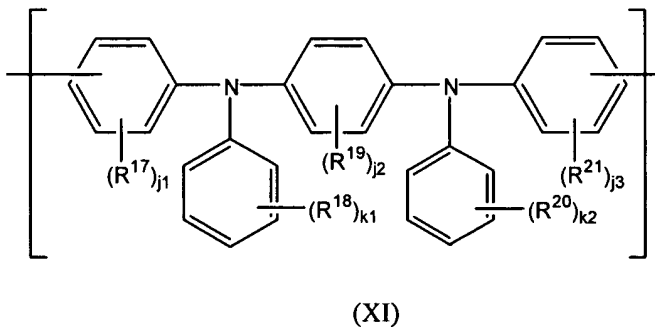
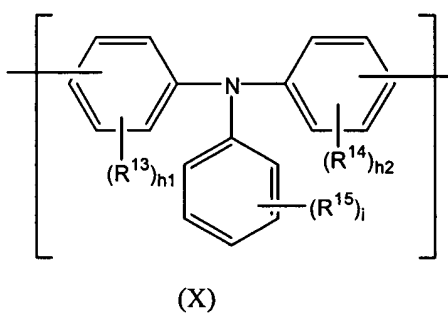
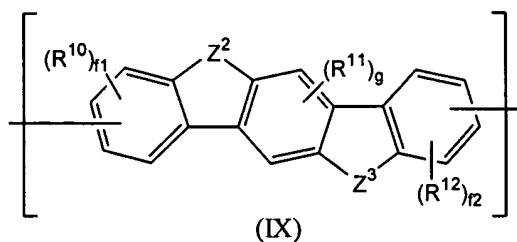
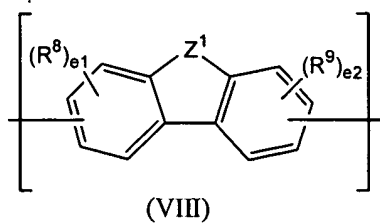
11. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 7~~ claim 1, wherein said semiconducting polymer brushes ~~are brushes wherein the~~ comprise a polymer is selected from the group consisting of poly(4-diphenylaminobenzyl acrylate), PPV, poly(2-methoxy-5-(2'-ethyl)hexyloxy-phenylene-vinylene) (MEH-PPV), dialkoxy derivatives of PPV, dialkyl derivatives of PPV, and polyfluorene derivatives.

12. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 7~~ claim 1, wherein said semiconducting polymer brushes ~~are brushes wherein the~~ comprise a polymer is selected from the group consisting of poly(4-diphenylaminobenzyl acrylate), PPV, MEH-PPV, poly (2,7-(9,9-di-*n*-hexylfluorene)), poly (2,7-(9,9-di-*n*-octylfluorene)), poly (2,7-(9,9-di-*n*-octylfluorene)-(1,4-phenylene-((4-*sec*-butylphenyl)imino)-1,4-phenylene)) (TFB), and poly (2,7-(9,9-di-*n*-octylfluorene)-3,6-benzothiadiazole) (F8BT).

13. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 12~~ claim 1, wherein said at least one other semiconducting material is comprises a semiconducting polymeric material or a semiconducting small organic molecule.

14. (Currently Amended) ~~An~~ The organic electronic device according to claim 13, wherein said at least one other semiconducting material ~~is either~~ comprises a semiconducting polymer selected from the group consisting of poly-phenylene-vinylene (PPV) and derivatives thereof, polyfluorene derivatives, polynaphthylene derivatives, polyindeno fluorene derivatives, polyphenanthrenyl derivatives, and poly(acrylate) derivatives, or comprises a semiconducting small organic molecule selected from the group consisting of aluminium quinolinol complexes, perylene and derivatives thereof, complexes of transition metals, lanthanides, and actinides with organic ligands ~~such as TMHD and quinaeridone, rubrene and styryl dyes.~~

15. (Currently Amended) ~~An~~ The organic electronic device according to claim 14, wherein said semiconducting ~~polymers are~~ material comprises a polymer unit selected from the group consisting polymers which include units of formulae (VIII), (IX), (X), (XI), (XII), (XIII), (XIV) or (XV) ~~as defined in claim 9.~~

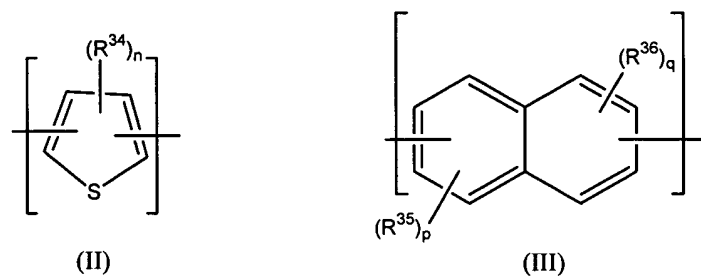


wherein:

R^1 is a group of formula $-(CH_2)_m-X-Y$ wherein

m is 0 or an integer of from 1 to 6,

X is a group of formula (X), (XI), (XII), (XIII), (XIV) or (XV) as defined above or a group of formula (II) or (III) as defined below



wherein

n is 0, 1 or 2,

p and q are the same or different and each is 0 or an integer of from 1 to 3, and

each of R^{34} , R^{35} and R^{36} is the same or different and is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below and groups of formula $-COR^{16}$ wherein R^{16} is selected from the group consisting of hydroxy groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below, amino groups, alkylamino groups the alkyl moiety of which is as defined below, dialkylamino groups wherein each alkyl moiety is the same or different and is as defined below, aralkyloxy groups the aralkyl moiety of which is as defined below and haloalkoxy groups comprising an alkoxy group as defined below which is substituted with at least one halogen atom,

or, where n , p or q is an integer of 2, the 2 R^{34} groups, the 2 R^{35} groups, or the 2 R^{36} groups respectively may, together with the ring carbon atoms to which they are attached, form an aryl group as defined below or a heterocyclic group having from 5 to 7 ring atoms, one or more

of said ring atoms being a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur atoms, and

Y is selected from the group consisting of a hydrogen atom, R^{37} , NHR^{38} and $NR^{38}R^{39}$, wherein

R^{37} is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below and groups of formula $-COR^{16}$ wherein R^{16} is as defined above, and

each of R^{38} and R^{39} is the same or different and is selected from the group consisting of aryl groups as defined below and aralkyl groups as defined below;

R^2 is selected from the group consisting of group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below and alkoxy groups as defined below;

each of R^8 to R^{15} and R^{17} to R^{33} is the same or different and is selected from the group consisting of alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below and groups of formula $-COR^{16}$ wherein R^{16} is as defined above,

or, where r or s is an integer of 2, the 2 groups R^{32} or R^{33} respectively may, together with the ring carbon atoms to which they are attached, form a heterocyclic group having from 5 to 7 ring atoms, one or more of said ring atoms being a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur atoms;

each of Z^1 , Z^2 and Z^3 is the same or different and is selected from the group consisting of O, S, SO, SO_2 , NR^3 , $N^+(R^{3'})_3$, $C(R^4)(R^5)$, $Si(R^4)(R^5)$ and $P(O)(OR^6)$, wherein R^3 , $R^{3'}$ and $R^{3''}$ are the same or different and each is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below, aralkyl groups as defined below, and alkyl groups as defined below which are substituted with at least one group of formula $-N^+(R^7)_3$ wherein each group R^7 is the same or different and is selected from the group consisting of hydrogen atoms, alkyl groups as defined below and aryl

groups as defined below, R^4 , R^5 , $R^{4'}$ and $R^{5'}$ are the same or different and each is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxy groups as defined below, halogen atoms, nitro groups, cyano groups, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below and aralkyl groups as defined below or R^4 and R^5 together with the carbon atom to which they are attached represent a carbonyl group, and R^6 is selected from the group consisting of hydrogen atoms, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryl groups as defined below, aryloxy groups as defined below and aralkyl groups as defined below;

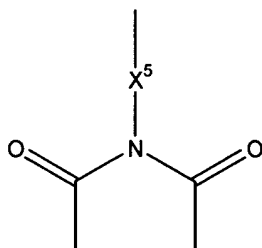
each of X^1 , X^2 , X^3 and X^4 is the same or different and is selected from:

arylene groups which are aromatic hydrocarbon groups having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted by at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryloxy groups as defined below and alkoxy groups as defined below;

straight or branched-chain alkylene groups having from 1 to 6 carbon atoms;

straight or branched-chain alkenylene groups having from 2 to 6 carbon atoms; and

straight or branched-chain alkynylene groups having from 1 to 6 carbon atoms; or X^1 and X^2 together and/or X^3 and X^4 together can represent a linking group of formula (V) below:



(V)

wherein X⁵ represents an arylene group which is an aromatic hydrocarbon group having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted by at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined below, haloalkyl groups as defined below, alkoxyalkyl groups as defined below, aryloxy groups as defined below and alkoxy groups as defined below;
each of e1, e2, f1 and f2 is the same or different and is 0 or an integer of 1 to 3;
each of g, q1, q2, q3 and q4 is the same or different and is 0, 1 or 2;
each of h1, h2, j1, j2, j3, l1, l2, l3, l4, r and s is the same or different and is 0 or an integer of 1 to 4;
each of i, k1, k2, o1 and o2 is the same or different and is 0 or an integer of 1 to 5; and
each of p1, p2, p3 and p4 is 0 or 1;
the alkyl groups above are straight or branched-chain alkyl groups having from 1 to 20 carbon atoms;
the haloalkyl groups above are alkyl groups as defined above which are substituted with at least one halogen atom;
the alkoxy groups above are straight or branched-chain alkoxy groups having from 1 to 20 carbon atoms;
the alkoxyalkyl groups above are alkyl groups as defined above which are substituted with at least one alkoxy group as defined above; and
the aryl group above and the aryl moiety of the aralkyl groups (which have from 1 to 20 carbon atoms in the alkyl moiety) and the aryloxy groups above is an aromatic hydrocarbon group having from 6 to 14 carbon atoms in one or more rings which may optionally be substituted with at least one substituent selected from the group consisting of nitro groups, cyano groups, amino groups, alkyl groups as defined above, haloalkyl groups as defined above, alkoxyalkyl groups as defined above and alkoxy groups as defined above.

16. (Currently Amended) ~~An~~ The organic electronic device according to claim 14, wherein said semiconducting polymers ~~are~~ comprise a polymer selected from the group consisting of poly(4-diphenylaminobenzyl acrylate), PPV, poly(2-methoxy-5-(2'-ethyl)hexyloxy-phenylene-vinylene)

(MEH-PPV), dialkoxy derivatives of PPV, dialkyl derivatives of PPV, and polyfluorene derivatives.

17. (Currently Amended) ~~An~~ The organic electronic device according to claim 14, wherein said semiconducting polymers ~~are~~ comprise a polymer selected from the group consisting of poly(4-diphenylaminobenzyl acrylate), PPV, MEH-PPV, poly (2,7-(9,9-di-*n*-hexylfluorene)), poly (2,7-(9,9-di-*n*-octylfluorene)), poly (2,7-(9,9-di-*n*-octylfluorene)-(1,4-phenylene-((4-*sec*-butylphenyl)imino)-1,4-phenylene)) (TFB), and poly (2,7-(9,9-di-*n*-octylfluorene)-3,6-benzothiadiazole) (F8BT).

18. (Currently Amended) ~~An~~ The organic electronic device according to claim 14, wherein said semiconducting small organic molecule ~~are~~ comprises a molecule selected from the group consisting of aluminium quinolinol complexes and perylene and derivatives thereof.

19. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 12~~ claim 1, wherein said at least one other semiconducting material ~~is~~ comprises a semiconducting nanocrystalline material.

20. (Currently Amended) ~~An~~ The organic electronic device according to claim 19, wherein said semiconducting nanocrystalline material ~~is selected from~~ comprises a semiconducting ~~nanocrystals~~ nanocrystal selected from the group consisting of cadmium selenide, lead selenide, zinc selenide, cadmium sulphide and zinc sulphide.

21. (Currently Amended) ~~An~~ The organic electronic device according to claim 20, wherein said semiconducting material ~~is~~ comprises cadmium selenide nanocrystals.

22. (Currently Amended) ~~An~~ The organic electronic device according to ~~any one of claims 1 to 21~~ claim 1, wherein said electrode is coated with a hole-transport layer or an electron-transport layer before said polymer brushes are attached thereto.

23. (Currently Amended) ~~A~~ The organic electronic device according to ~~any one of claims 1 to 22~~ claim 1, wherein said device ~~is fabricated with~~ comprises polymer brushes of only a single species.

24. (Currently Amended) A process for ~~the manufacture of~~ manufacturing an organic electronic device ~~according to any one of claims 1 to 23~~, said process comprising:

- (a) coating a substrate with a material to form ~~one of the electrodes~~ a first electrode;
- (b) optionally coating the first electrode ~~thus formed~~ with a self-assembled monolayer end-capped with an initiator group or a self-assembled monolayer with the capability of forming a free radical;
- (c) bringing the first electrode, optionally coated with the self-assembled monolayer produced in step (b), into contact with a solution of a monomer under conditions suitable for the growth of polymer brushes comprising said monomer ~~unit~~ from the surface of said electrode;
- (d) treating the product of step (c) in such a way as to produce a product in which the polymer brushes are in contact with at least one further semiconducting material; and
- (e) coating a material on ~~the~~ a top surface of the product of step (d) to form ~~the~~ a further electrode.

25. (Currently Amended) ~~A~~ The process according to claim 24, wherein said self-assembled monolayer comprises thiol molecules or siloxane molecules end-capped with an initiator group.

26. (Currently Amended) ~~A~~ The process according to claim 24 ~~or claim 25~~, wherein a hole transport layer or electron transport layer is deposited before optional step (b) or step (c).

27. (Currently Amended) An organic electronic device comprising at least two electrodes and a semiconducting layer comprising at least one hole-transporting semiconducting material or at least one electron-transporting semiconducting material, wherein said at least one semiconducting material ~~is in the form of~~ comprises semiconducting polymer brushes ~~which are~~ attached to ~~the~~ a surface of at least one of said electrodes.

28. (Currently Amended) ~~A~~ The organic electronic device according to claim 27, wherein the device is comprises a field effect transistor.

29. (Currently Amended) A process for ~~the manufacture of~~ manufacturing an organic electronic device ~~according to claim 27 or claim 28~~, said process comprising:

- (a) coating a substrate with a material to form ~~one of the electrodes~~ a first electrode;
- (b) optionally coating the first electrode ~~thus formed~~ with a layer of an electronically insulating material;
- (c) optionally coating the first electrode ~~thus formed in~~ of step (a), or the electrode formed following optional step (b), with a self-assembled monolayer end-capped with an initiator group or a self-assembled monolayer with the capability of forming a free radical;
- (d) bringing the electrode formed in step (a) or optional step (b), either electrode form optionally coated with the self-assembled monolayer produced in step (c), into contact with a solution of a monomer under conditions suitable for ~~the~~ growth of polymer brushes comprising said monomer ~~unit from the~~ a surface of said electrode;
- (e) optionally coating the polymer brushes formed in (d) with a layer of an electronically insulating material; and
- (f) coating a material on ~~the~~ a top surface of the product of step (d), or following optional step (e), to form ~~the~~ a further electrode.

30. (Currently Amended) ~~A~~ The process according to claim 29, wherein the electrode formed in step (a)-is coated with a layer of an electronically insulating material, as step (b).

31. (Currently Amended) ~~A~~ The process according to claim 29, wherein the polymer brushes formed in step (d) are coated with a layer of an electronically insulating material, as step (e).

32. (New) The organic electronic device according to claim 14, wherein the semiconducting small organic molecule comprises actinides with organic ligands-selected from the group consisting of TMHD, quinacridone, rubrene, and styryl dyes.